2. *Tracks of brilliant meteors.* Most of the meteors were equal to stars of the third magnitude; some of the second, a few of the first or brighter. The time of appearance of these last only was recorded.

No.	Time	Beginning. R.A.	Beginning. N. Decl.	End R.A.	End N. Decl.	Duration.	Remarks.
	h m	h m	°	h m	°	s	
1	7 22	0 40	52	22 20	62	3	
2	7 34	1 10	35	0 40	27	1½	
3	7 39	1 0	35	0 20	27		
4	8 5	2 0	40	2 30	30		Longer than usual; very brilliant.
5	8 6	2 40	55	3 40	58		= Venus; train lasted 5m; drifted to N.E. (wind was from S.W.)
6	8 25½	1 10	57	0 50	68		= 1st magnitude.
7	8 51	In the south east.					Burst.
8	9 8	2 40	55	3 40	58		Very brilliant; train red and green.
9	9 33½	3 0	52	4 0	52	2½	

The watch used was 30s slow.

3. *Data for determining the velocity.* Besides the data in the last paragraph, which will be useful when the average height has been determined, I made the following determinations of meteors which seemed to have a normal velocity.

Distance from Radiant Point. At Beginning.	At End.	Duration.
°	°	s
4	9	1½
4	10	1½
9	18	2
7½	14	2½

The night was very clear.

Anderson's University, Glasgow.

Observations of Meteors and Meteoric Showers of Nov. 1872.

By Captain Chimmo, of H.M.S. "Nassau."

(*Communicated by Capt. Toynbee.*)

The following extracts are from the log of H.M.S. "Nassau," Capt. W. Chimmo, I send them to you as I know some of the Fellows are working at the subject of meteors.

"13th July, 1872, 2 A.M. Observed a brilliant meteoric body fall vertically, and splash into the sea on the port beam. Position at noon, 2°15′ N. 124°30′ E.

In Bombay.

24th Nov. 1872. Midnight, observed a meteor pass from south to west.
25th, 10 P.M. Observed a meteor pass from N. to N.E.
26th, 10 P.M. Observed a meteor pass from N.N.E. to east.
27th, 8 P.M. Observed a most unusual meteoric shower lasting 8 hours, counted 300 in five minutes.
29th, 6 A.M. Observed several small meteors.
30th, 6 P.M. Observed several small meteors."

Meteorological Office,
116 Victoria Street, London, S.W.
January 17, 1873.

Meridian Marks for Transit Instruments.

By Edward Crossley, Esq.

In considering over the best means of using a meridian mark, near at hand, for a small transit instrument, where it is inconvenient to mount either collimating telescopes or *fixed* plain lenses, ground to the focus of the distant mark, on stone piers, or on the walls of the obsrvatory itself (which may be only of woodwork), it has occurred to me that, supposing the mark be near at hand, say 50 feet or more, a plain lens ground to the focus of this mark may be slid on in front of the object-glass of the transit instrument by means of a firm adapter, and in place of the dew-cap usually supplied (the weight of the two being equal) the balance will remain undisturbed.

The distant mark will now be distinctly visible in the field of the telescope, and should the plain lens not be exactly central with the mark, a reversal of the transit instrument will show the difference, provided the telescope has already been duly collimated over the mercury trough.

It will be evident that the above method will give great accuracy to a portable instrument, with or without observatory; it being only necessary to place the mark at the right distance in the meridian from the object-glass. Where the telescope is mounted at one end of the horizontal axis, there should be two meridian marks at a distance apart equal to twice the excentricity of the telescope.

With regards to mercury troughs, perhaps some of your readers may not be aware of the advantage of a shallow copper trough, say $\frac{1}{16}$-inch in depth just covered with mercury. It is wonderfully still on a firm support, and yet perfectly sensitive. It is convenient to place the copper trough inside a larger wooden trough to hold the excess of mercury.

Bermerside Observatory,
Halifax, March 5, 1873.
